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(54) Broadband fixed-radius slot antenna arrangement

(57) A fixed radius tapered slot antenna (100) formed a dielectric substrate (10) with an electrically conductive layer (14) on one side. The slot is defined by two hemispherical shaped elements (12, 13). A common base (15) is also formed on the conductive layer behind the hemispherical shaped members. Preferably, a microstrip feedline (16) is formed on the side of the dielectric substrate to electromagnetically couple to the balun (18) adjacent the narrow end of the tapered slot. A contiguous array of fixed radius tapered slot antennas (100) can be made on the same conductive layer of a dielectric layer. A reflector can be integrated with the antenna array to improve the radiation pattern. The fixed radius tapered slot antenna has been proven to out-perform an exponentially tapered slot or Vivaldi antenna.

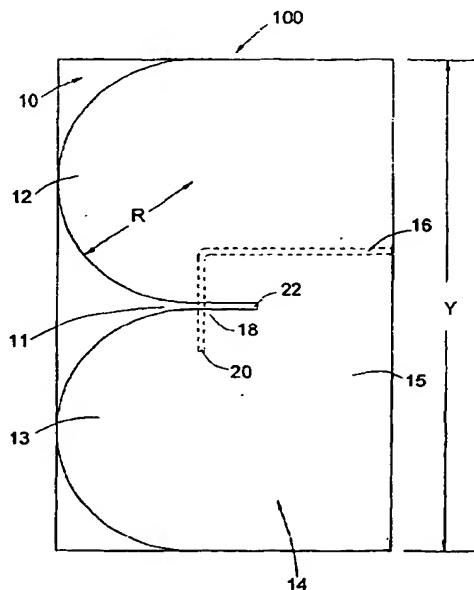


FIG.3

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EUROPEAN SEARCH REPORT

Application Number
EP 99 40 2781

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 7 August 2001	Examiner Van Dooren, G
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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